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ABSTRACT

In 1994-95, the Wake County Public School System received a grant from the North Carolina Department of Public Instruction to implement the Intervention/Prevention Program to provide better support to at-risk students by collaborating with many human service agencies that work with children and families. The vehicle for change was the development of Student Support Teams (SSTs) as a replacement of the existing "teacher assistance teams." This report contains an evaluation of the program for the 1998-99 school year. Data were collected from the SST chairperson at each of the 105 participating schools. A total of 3,586 students were referred to the SSTs in this school year. A focus of the evaluation was the effectiveness of classroom-based, school-based, and community-based strategies to help students. Findings indicate that the SST program continues to provide invaluable service to students at-risk and their families. A large majority of the referred students showed improvement in their areas of concern by the end of the school year. However, the findings also suggest that the effectiveness of SSTs in alternative schooling programs needs further study since these schools had relatively poor strategy effectiveness ratings and high levels of "No Improvement" ratings. (Contains 17 figures.) (SLD)

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ED 438 317

WAKE COUNTY PUBLIC SCHOOL SYSTEM

Eye on Evaluation

Evaluation and Research Department

E&R Report No. 00.08

INTERVENTION/PREVENTION PROGRAM EVALUATION 1998-99

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INTERVENTION/PREVENTION PROGRAM EVALUATION 1998-1999

In 1994-95, the Wake County Public School System received a grant from the North Carolina Department of Public Instruction to implement a pilot project known as the Intervention/Prevention Program (I/P). The main purpose was to provide better support to students who were at-risk by collaborating with many human service agencies that work with children and families. The vehicle for change was the development of Student Support Teams (SSTs) to support students as a replacement for existing "teacher assistance teams". For the 1994-95 school year, a district/community committee selected nine pilot schools through a competitive process for program participation.

The SST is a collaborative, multidisciplinary team that is responsible for developing action plans that support and strengthen individual students through the use of school and/or community-based strategies. The SST model involves viewing students from a holistic perspective, that is, the SST must be inquisitive about the dynamics of all aspects in the student's environment and life circumstances to design appropriate and effective ways to increase success (e.g., academics, family, friends, affect, culture, behavior). During the 1994-95 school year the Coordinating Committee of the I/P program wrote and developed the *Guide to Strong SSTs*. *Guide to Strong SSTs* provided the framework for developing and implementing a successful SST process at an elementary, middle, or high school by defining specific goals for students and developing a plan of action to meet those goals.

Since 1994, the North Carolina Department of Public Instruction has continued to provide grant funding that supports the Intervention/Prevention Program in the Wake County Public School System. The program's mission is to provide support to students and youth who are experiencing academic, behavioral, family, and emotional difficulties which interfere with learning. The SST at each school provided this support through a collaborative team approach, generating individualized strategies that influence the interaction of environment, family, emotions, and learning on the child's life. The project grew from the original group of nine schools piloting the project in 1994 (six elementary schools and three alternative schools), to 105 schools (69 elementary, 20 middle, 13 high, and 3 alternative school sites) during the 1998-99 school year.

The Evaluation and Research Department has collected and analyzed data in order to make summative evaluations of the impact of the SST interventions and services on the students and youth served. A previous SST report, *Intervention/Prevention Grant Evaluation 1996-98* (Report No. 99.16), focused on the 1996-97 and 1997-98 school years. This report involved a systematic process of data collection and generation to evaluate student performance, areas of concern, and strategy effectiveness. The current report focuses on the 1998-99 school year. As a result of experiences from the initial report, there were some minor changes in the data collected. The data discussed in this report come from the final reports completed by the SST chairpersons for each of the students who were discussed at the SST meetings in 1998-99.

PROGRAM DESCRIPTION

Student Support Teams are multidisciplinary (multi-agency) school-based teams that design and implement individualized action plans to strengthen and support students through school-based and/or community-based strategies. Implementation of the SST model consists of extensive training in three guiding practices.

- ✓ ***Individualized Interventions***: generating strategies that influence the interaction of holistic influences on the child's life (e.g., environment, family, emotional, learning).

- ✓ ***Collaborative Team Approach***: involving parents, school staff, and community agency representatives in partnership to provide services needed by the child.

Capitalizing on Strengths: remediating student weaknesses by building on strengths.

The SST approach is designed to assist schools in helping students-at-risk. Many of these students are challenged with a variety of concerns at school and at home. These challenges include health, education, and social service needs, which may negatively affect the learning process.

In public schools, a variety of factors associated with school failure may affect students at risk. Examples of risk factor conditions external to the school include poverty, unmet health needs and physical, emotional, and/or sexual abuse. Neither a single school nor a human service agency alone is capable of addressing the plethora of challenges these students face. In addition, students and families may often have difficulty in accessing school and community services. As a consequence, students and families with numerous concerns may not know where or how to seek assistance.

The school based SST builds and renews connections and partnerships among school and community based human service agencies to provide help with risk factors. Several essential functions portray SSTs at the school site. These include, assessment, development of an action plan, linking students to services, implementation, monitoring, and evaluation. Through collaborative interactions, SSTs establish a comprehensive service network where participants share the responsibility for students at risk of school failure and their families. Therefore, students and families receive a variety of services in a supportive, orderly, and coordinated fashion.

EVALUATION PLAN

Major issues addressed in the 1996-97 & 1997-98 evaluation focused on the impact of the SST process and the identification of interventions that appeared to be more successful than others in improving presenting concerns. This focus was continued in the 1998-99 school year. The evaluation design also addressed specific questions about the SST program.

Evaluation Questions

The purpose of the 1998-99 evaluation was to respond to several questions related to the types of student referrals, the types of strategies recommended and implemented, and the effectiveness of the SST program.

- ❑ Were presenting concerns more prevalent in any particular area(s)?
- ❑ Did students who were referred for behavior concerns show improvement after SST interventions?
- ❑ Did students who were referred for emotional stability concerns show improvement after SST interventions?
- ❑ Did students who were referred for "other" concerns show improvement after SST interventions?
- ❑ Were strategies implemented when recommended for use?
- ❑ Were some strategies more effective than others?

Data Collection Activities

The Wake County School System's Intervention/Prevention staff collected data for the 1998-99 school year from chairpersons for each school SST. Data were analyzed by an independent evaluator working for the school system's Evaluation and Research Dept. Activities focused on measuring the impact of the SST interventions and services on the students served. A systematic process of data collection generated data to evaluate areas of concern and strategy effectiveness. Information in this report comes from the final reports completed by the SST chairpersons for each of the students who were discussed at the SST meetings in 1998-99.

SST coordinators completed scan forms on each of the students referred to the team. The form collected data on the background of the student, who requested the intervention, the area(s) of concern, and the effectiveness of the individual strategies. Educational interventions encompassed areas of classroom-based strategies, school social work services, psychological services, family support services, school counseling services, Department of Health Services, community-based services referrals, and special education referrals. For 1998-99, strategies were grouped into three major classifications: classroom-based, school-based, and community-based.

SST coordinators were expected to collect the forms and verify that the information was correct. The data forms were submitted to the Department of Evaluation and Research for processing and data analysis.

EVALUATION RESULTS

School Participation in the SST Program

Of the 105 schools participating in the SST program in WCPSS in 1998-99, there were 69 elementary schools, 20 middle schools, 13 high schools, and 3 alternative schools. SST chairpersons completed scan forms for 3,586 students served during the school year. Figure 1. summarizes the number of students who were reported as served.

Figure 1
Schools and Students Served By SSTs in 1998-99.

School Type	No. Schools	Students Referred
Elementary	69	2,632
Middle	20	548
High	13	352
Alternative	3	53
Missing Data		1
Total	**103**	**3,586**

Previous evaluation reports identified 1,279 students served by SST in 49 schools in 1996-97, and 3,963 students served in 103 schools in 1997-98.

At the end of 1998-99, there were a total of 90,953 students in the 105 schools that participated in the SST program. A total of 3,586 of these students, or four percent, were referred to SSTs.

Ethnic and Gender Characteristics of Referrals

Figure 2 describes the ethnic and gender characteristics of the 1996-97 to 1998-99 students referred to the SSTs. In 1998-99, of those referred, approximately 35% (1241) were female and 59% (2105) were male. For approximately 6% (240) of the students referred, the data on gender was unavailable. A total of 2093 males and 1238 females had information on their ethnicity, and information for 255 students was missing both ethnicity and gender information.

Figure 2
Characteristics of SST Referrals for 1996-97 to 1998-99.

	Black	White	Other
1996-97			
Male (n = 831)	41%	55%	4%
Female (n = 448)	48%	50%	2%
Total (n = 1279)	43%	53%	3%
1997-98			
Male (n = 1960)	42%	53%	5%
Female (n = 1301)	46%	48%	5%
Total (n = 3261)	44%	51%	5%
1998-99			
Male (n = 2093)	42%	51%	7%
Female (n = 1238)	45%	47%	8%
Total (n = 3331)	43%	49%	8%

Over the last three school years the percentage of males referred to the SST teams has generally been steady at 60 to 65% of the referrals. The percentage of referrals that are Black has also remained fairly stable, but we have seen an increase in the percentage of students from other ethnic groups being referred. The proportion of the SST referrals that are White students has dropped from 53% in 1996-97 to 49% in 1998-99, with both White male and female students making up a smaller percentage of the referral group in 1998-99 than they did in both 1996-97 and 1997-98. There is also a slight decline in the proportion of Black female SST referrals over the last three years.

Original Source of SST Referrals

At the time of the initial referral, data was collected on the referral source for each student. Referrals could be initiated in a number of ways, including school staff, outside agencies, or parents. Figure 3 displays original referral sources for the school years 1996-97 to 1998-99 with percentages rounded.

Figure 3
Original Sources of SST Referrals, 1996-97 to 1998-99.

Source of Request	1996-97	1997-98	1998-99
Administration	2%	2%	2%
Central Office	N/A	0%	0%
Guidance Counselor	12%	3%	4%
IRT / LART	N/A	0%	0%
Nurse	1%	0%	0%
Outside Agency	1%	0%	0%
Parent / Guardian	18%	14%	17%
Psychologist	0%	0%	0%
Teacher	58%	75%	69%
SAP Coordinator	N/A	0%	1%
Self-referral	N/A	N/A	1%
School Social Worker	2%	0%	1%
Special Education Teacher	3%	3%	2%
Other	2%	1%	1%

By a wide margin, regular education teachers (58% in 96-97, 75% in 97-98, and 69% in 98-99) referred students to the SST more than any other group, followed by parents (18%, 14%, 17%). During the 1996-97 school year, guidance counselors made 12% of the referrals while in the 1997-98 school year, they made three percent of the referrals. This increased slightly to four percent in 1998-99.

In 1998-99, a total of 2,352 students (66%) were reported as receiving pre-referral screening, and 2,203 (61%) of the student's parent/guardians were reported as having attended at least one of the SST meetings.

Categories of Presenting Concerns for SST Students

For the 1998-99 school year, presenting areas of concern were divided into five major categories: (1) academic concerns, (2) behavior concerns, (3) psychological/emotional behaviors, (4) family characteristics, and (5) other. The categories are summarized in Figure 4.

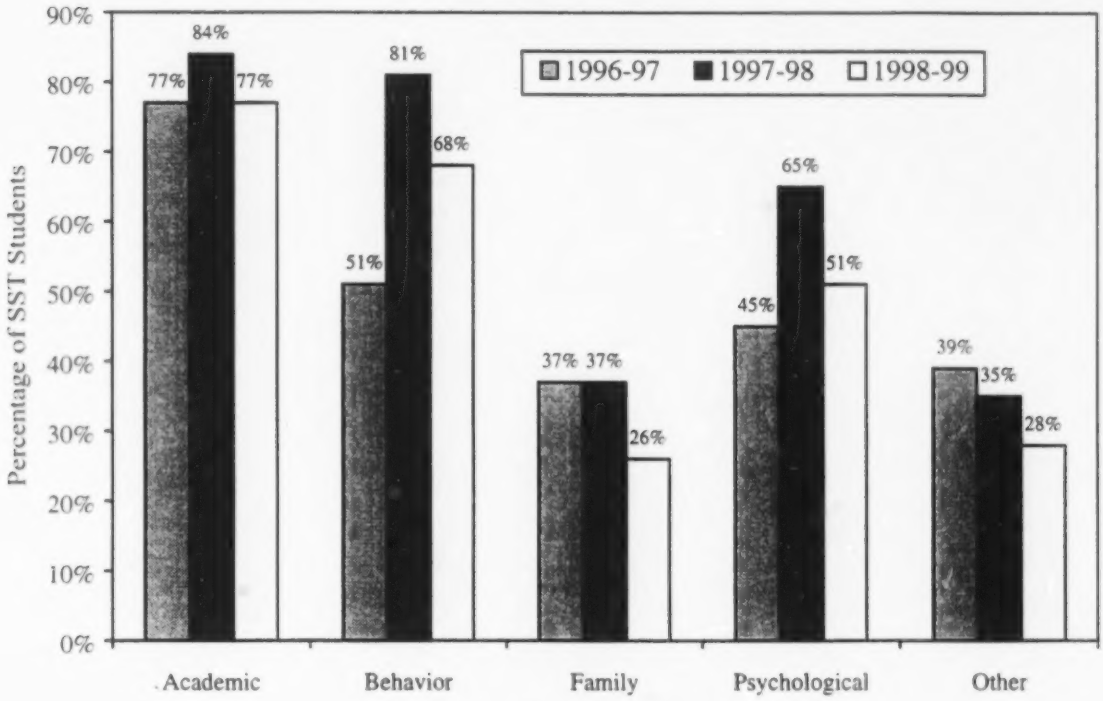
Figure 4
Categories of Presenting Concerns for the 1998-99 School Year.

Academic Concerns	Behavior Concerns	Psychological / Emotional Behaviors	Family Characteristics	Other
Handwriting	Attention	Lack of Confidence	Lack of Basic Needs	Attendance
Math Computation	Aggression	Inexplicable Crying	Death in a Family	Hearing
Math Problem Solving	Assignment Completion	Easily Frustrated	Extended / Terminal Illness	Medical
Memory	Following Directions	Exhibits Grief	Extended mental illness of immediate family member	Motor Skills
Oral Communication	Organizational Skills	Mood Changes	Family changes (i.e., separation, divorce, new member, recent move)	Retention
Reading	Social Skills	Lack of Motivation	Unemployment	Speech / Language
Reading Comprehension	Social Skills	Relationship Concerns	Other	Vision
Written Language	Withdrawn	Low Self-esteem / Seems Preoccupied		Other
Other	Other	Other		

Presenting Concerns for SST Students

For each student referred, major areas of concern were bubbled on the scannable form. More than one concern could be recorded for each student. The categories for major areas of concern were academic, behavior, family, psychological, and other. Of the 3,586 students that had final reports completed by the SST chairpersons, 248 students (7%) did not have any areas of concerns listed. Figure 5 summarizes the percentage of students in each of the five major areas of concern for the three school years.

Figure 5
Presenting Concerns in 1996-97 and 1998-99.



For the 1998-99 school year, academic concerns were the most prevalent (77%). The prevalence of academic concerns reflects similar data from 1996-97 and 1997-98. In these years, 77 percent and 84 percent of students were referred to SSTs for academic concerns, compared to 77 percent in 1998-99.

For all three school years, the second most prevalent concern was behavior (51% for 1996-97, 81% for 1997-98 and 58% in 1998-99). The third most prevalent area of concern was psychological (45% for 1996-97, 65% for 1997-98, 51% for 1998-99). Family concerns were reported at 37% in both 1996-97 and 1997-98, and at 26% in 1998-99. Initial concerns coded in

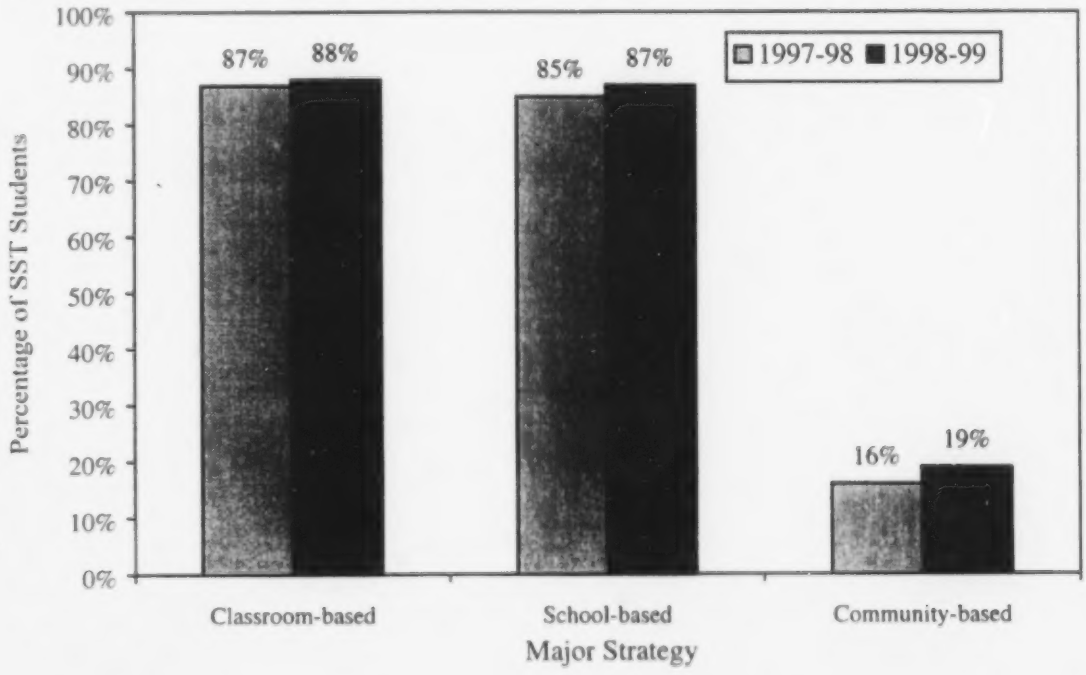
the Other category (which can include attendance, hearing, medical, motor skills, retention, speech/language, vision, and other) has steadily decreased as a proportion of the referrals made to SSTs, from 39% in 1996-97 to 28% in 1998-99.

Nineteen percent of the students had only one presenting area of concern, 24% had two areas of concern listed, 25% had three, 17% had four, and 8% (269 students) had all five areas of concern listed.

Strategies Recommended for Presenting Concerns

For each student, the SST team recommended potential strategies. Multiple strategies could be recommended. For the 1997-98 and 1998-99 school years there were three major strategy classifications: classroom-based, school-based, and community-based. The categories for 1996-97 were different and are not reported in this document. At the end of the year, SST coordinators were asked to code which of the strategies were recommended and the level of effectiveness (Good, Fair, or Poor). SST chairpersons were also asked to code the length of time the strategy was implemented (Not Used, Less than 3 weeks, 3-9 weeks, 10-18 weeks, Over 18 weeks, or Not Applicable). Figure 6 depicts the percentage of students in each of the three categories for the last two school years.

Figure 6
Proportions of Students in Each of Three Major Strategy Categories in 1997-98 & 1998-99.



In all three areas there has been a slight increase in the proportion of students who received recommendations for one or more of the strategies within the groups. One hundred and thirty

eight of the students did not have any strategies recorded on the final form. The average number of strategies recommended was 6.6, and 12 students received recommendations for 20 or more separate strategies, the highest being a recommendation for 24. The majority of students received recommendations for two to 11 separate strategies. Of the 23,535 separate strategies recommended in 1998-99, 62% were classroom-based, 34% were school-based, and 4% were community-based. An average of 4 classroom-based, 2 school-based and 0.5 community-based strategies were recommended.

Middle school students had significantly more strategies recommended for use than elementary grade students, and elementary students had significantly more strategies recommended than high school students [$F(3,3581) = 26.82$, $p < .01$]. Students at alternative schools received the highest number of recommended strategies.

Elementary school students were significantly more likely to have classroom-based strategies recommended than middle, high or alternative schools [$F(3,3581) = 94.16$, $p < .01$]. Middle school students were the next most likely, followed by alternative school students. High school students were the least likely to have classroom-based strategies recommended. Alternative school students were the most likely to have school-based strategies recommended. Middle and high school students were equally likely to have school-based strategies recommended, and elementary school students were the least likely to have school-based strategies recommended [$F(3,3581) = 53.64$, $p < .01$]. This same pattern was repeated for community based strategies [$F(3,3581) = 46.51$, $p < .01$].

Effectiveness of Recommended Strategies

As one would expect, not all strategies recommended were implemented, and some students received strategies for which they were not recommended. For the classroom strategies implemented, the strategies were considered Fair or Good approximately 86% of the time. Approximately 84% of the classroom-based strategies were implemented in 1998-99, though care must be taken in assessing implementation as some students received strategies for which they were not recommended. For example, of the 628 students who had study skills recommended, 290 of these students received at least 3 weeks of support. A further 74 students who were not reported as being recommended to receive study skills support also received at least 3 weeks.

Classroom-based strategies that were used and rated are listed by order of effectiveness in Figure 7. The columns under the heading of Strategies are the number of students for whom the strategy was recommended, and the number of students for whom the strategy was used.

Figure 7
Classroom-Based Strategies Used During the 1998-99 School Year.

	Strategies		Effectiveness Rating		
Strategy	Recommended	Used	Good	Fair	Poor
Active learning	1549	1401	38%	48%	14%
Assessment strategies	1057	956	41%	46%	13%
Differentiated instruction	1685	1457	40%	48%	12%
Modified environment	1458	1259	36%	51%	13%
Coaching	1125	965	40%	46%	14%
Feedback	1361	1177	39%	46%	15%
Flexible grouping	1555	1277	39%	49%	12%
Teaching styles	729	662	49%	42%	9%
Parental involvement	1688	1380	49%	35%	16%
Study skills	628	346	39%	44%	17%
Behavioral interventions	1003	860	33%	44%	23%
Technology	334	289	34%	54%	12%
Other classroom	382	254	41%	41%	18%

Figure 8 details the effectiveness ratings for the school support services strategies recommended and used in the 1998-99 school year. In general, all school support services that were implemented were rated as Fair or Good approximately 86% of the time. Approximately 72% of the school-based strategies were implemented in 1998-99. As with the classroom-based strategies, care must be taken in using this figure as some students received strategies for which they were not recommended.

School-based strategies that were used and rated are listed by order of effectiveness in Figure 8. The columns under the heading of Strategies are the number of students for whom the strategy was recommended, and the number of students for whom the strategy was used.

Figure 8
School Support-Based Services Strategies Used during the 1998-99 School Year.

	Strategies		Effectiveness Rating		
Strategy	Recommended	Used	Good	Fair	Poor
Individual counseling	699	577	44%	38%	18%
Small group counseling	311	249	47%	37%	16%
Education program planning	336	254	51%	42%	8%
Consultation on instructional modification	351	291	52%	42%	6%
ESL/Migrant education	71	63	54%	25%	21%
Peer mediation	74	79	38%	43%	19%
Reading specialist	689	527	53%	38%	9%
Change teacher/schedule	217	166	52%	34%	14%
Home visit	205	105	40%	36%	25%
Family/community assessment	109	77	46%	29%	25%
Resiliency assessment	22	25	58%	42%	0%
Parent education	231	198	48%	33%	19%
School conference	1314	835	50%	34%	16%
Family counseling	151	113	46%	29%	25%
Consult related services	266	179	54%	34%	13%
Volunteer mentor	241	179	51%	34%	16%
WCPSS alternative school	53	35	54%	21%	25%
After hours school	143	134	33%	40%	28%
Tutoring	801	610	42%	45%	13%
Magnet elective	138	102	46%	44%	10%
After school programs	73	60	47%	39%	15%
Communities in schools	70	88	51%	34%	15%
IEP team	731	448	74%	21%	5%
Other school-based	763	396	49%	38%	13%

Community-based services were the third category of recommended strategies for the 1998-99 school year. With the exception of legal services referrals, most community-based strategies were rated Good or Fair approximately 78% of the time. Approximately 63% of the community-based strategies were implemented in 1998-99.

Community-based strategies that were used and rated are listed by order of effectiveness in Figure 9. The columns under the heading of Strategies are the number of students for whom the strategy was recommended, and the number of students for whom the strategy was used.

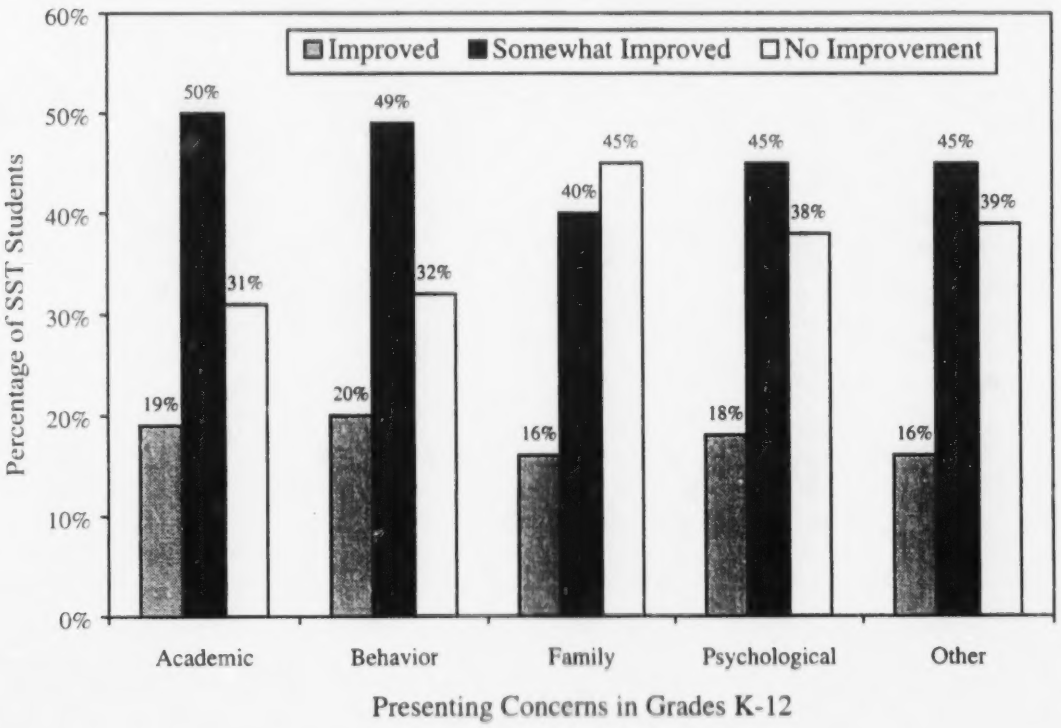
Figure 9
Community-Based Services Strategies Used during the 1998-99 School Year.

	Strategies		Effectiveness Rating		
Strategy	Recommended	Used	Good	Fair	Poor
Alternative school outside WCPSS	69	59	55%	26%	19%
Medical services	316	179	52%	25%	23%
Mental health	220	135	49%	27%	24%
Social services	84	52	35%	37%	28%
Legal services	18	24	57%	36%	7%
Community resource	141	84	51%	25%	24%
Other community-based	11	8	100%	0%	0%

Improvement for Presenting Concerns

For each initial presenting concern, the SST member completing the form was to indicate whether the broad area of concern (academic patterns, behavior patterns, psychological/emotional behaviors, family characteristics, and other) had improved *a lot*, *somewhat*, or *not improved*. Figure 10 summarizes the data for improvement of presenting concerns for the 1998-99 school year.

Figure 10
Improvement for Presenting Concerns in 1998-99.



Academic and behavioral concerns show the higher ratings for improvement. Family concerns are less likely to be rated as improved, even somewhat improved.

Females were significantly more likely to have been rated for improvement for behavioral and psychological / emotional concerns than males. All other concerns show no significant difference in ratings for improvement based on sex. Black, Hispanic and Multi-racial students were significantly more likely to have been rated as less improved than White students in all five areas of concern.

The next three figures looks at the improvement for each of the five presenting concerns for each of the three school types, kindergarten to five (elementary), six to eight (middle school), and high schools. Figure 11 summarizes the elementary data for improvement of presenting concerns for the 1998-99 school year in with percentages rounded.

Figure 11
Improvement of Presenting Concerns for Elementary Schools in 1998-99.

Concern	Yes, a lot	Yes, somewhat	Total Improved	No
Academic	19%	53%	71%	29%
Behavior	19%	51%	69%	31%
Psychological	15%	46%	69%	39%
Family	15%	39%	54%	46%
Other	14%	47%	61%	39%

Ratings of improvement for elementary school children ranged from 54% for family concerns, to 71% for academic concerns. The same categories of presenting concerns used for elementary schools were also used for middle schools. There was improvement for each area of concern. Figure 12 summarizes the data for improvement of presenting concerns for the 1998-99 school year.

Figure 12
Improvement of Presenting Concerns for Middle Schools in 1998-99.

Concern	Yes, a lot	Yes, somewhat	Total Improved	No
Academic	17%	44%	60%	40%
Behavior	17%	46%	63%	37%
Psychological	18%	43%	61%	39%
Family	13%	42%	65%	35%
Other	20%	42%	62%	38%

Improved and somewhat improved ratings for middle school students ranged from 60% for academic concerns, to 65% for family concerns. In high schools, from the time of initial concern to the end-of-the year, all concerns improved some. Improvement for presenting concerns ranged

from approximately 75% (family concerns) to 83% (behavioral concerns). Figure 13 summarizes the data for improvement of presenting concerns for the 1998-99 school year for high schools.

Figure 13
Improvement of Presenting Concerns for High Schools in 1998-99.

Concern	Yes, a lot	Yes, somewhat	Total Improved	No
Academic	32%	41%	73%	27%
Behavior	36%	47%	83%	17%
Psychological	39%	43%	82%	18%
Family	32%	43%	75%	25%
Other	26%	51%	77%	23%

The last series of data examines the ratings for improvement of the alternative schools. Students in these schools could be from grades K to 12. Figure 14 summarizes the data for improvement of presenting concerns for the 1998-99 school year for high schools.

Figure 14
Improvement of Presenting Concerns for Alternative Schools in 1998-99.

Concern	Yes, a lot	Yes, somewhat	Total Improved	No
Academic	28%	33%	61%	39%
Behavior	20%	15%	35%	65%
Psychological	14%	18%	32%	68%
Family	4%	25%	29%	71%
Other	15%	8%	23%	77%

Improved and somewhat improved ratings were from 23% for other concerns, to 61% for academic concerns. The small numbers of students in these schools does make any detailed assessment difficult. For example, only 18 students received ratings for academic concerns, and the other concerns generally had 30 to 40 students rated for level of improvement.

EVALUATION QUESTIONS

The purpose of this evaluation was to respond to several questions related to the types of student referrals, the types of strategies recommended and implemented, and the effectiveness of the SST program.

Were presenting concerns more prevalent in any particular area(s)?

As with the previous years of the program, academic concerns followed by behavior were the most prevalent during the 1998-99 school year. Family concerns were the least frequent concerns noted. Over 73% of the students referred to SSTs were in elementary schools.

A one-way analysis of variance (ANOVA) indicated that middle and alternative school students had significantly higher numbers of presenting concerns than either elementary or high school students, and elementary students had significantly more presenting concerns than high school students [$F(3,3581) = 19.21$, $p < .01$]. Middle and alternative school students also had a significantly higher number of strategies recommended than elementary students, and elementary students had a higher number of strategies recommended than high school students [$F(3,3581) = 26.82$, $p < .01$].

Did students who were referred for behavior show improvement after SST interventions?

Yes. The majority of students with behavior concerns showed some improvement. Students at alternative schools were reported to be the least improved. High schools reported the highest proportion of the students showing improvement in their behavioral concerns. Elementary students showed the next highest improvement, though the proportion of improvement was not too dissimilar from middle schools. Figure 15 depicts the total percentage of improvement for each of elementary middle, high and alternative schools.

Figure 15
Improvement of Behavior Presenting Concerns in 1998-99.

School Type	Total Improved	No Improvement
Elementary	69%	31%
Middle	63%	37%
High	83%	17%
Alternative	35%	65%

Did students who were referred for psychological / emotional concerns show improvement after SST interventions?

Most students were rated as having shown improvement. Students at alternative schools were more likely not to have been rated as having shown improvement in their psychological/emotional concerns. High schools showed the highest proportion of students showing improvement in their psychological / emotional concerns. Elementary and middle

schools were similar in the ratings of improvement. Figure 16 depicts the total percentage of improvement for each of elementary middle, high and alternative schools.

Figure 16
Improvement of Emotional Presenting Concerns in 1998-99.

School Type	Total Improved	No Improvement
Elementary	61%	39%
Middle	62%	38%
High	82%	18%
Alternative	32%	68%

Did students who were referred for "other" concerns show improvement after SST interventions?

Yes, there was some improvement shown for all school types during the 1998-99 school year. For middle and high schools, the total improvement and no improvement were similar. For elementary schools, total improvement was significantly lower. Alternative schools once again showed the least improvement. It should be noted that the "other" category is quite varied. For example, it includes an attendance category and an "other" category. Figure 17 depicts the total percentage of improvement for each of elementary middle, high and alternative schools.

Figure 17
Improvement of Other Presenting Concerns in 1998-99.

School Type	Total Improved	No Improvement
Elementary	61%	39%
Middle	74%	26%
High	78%	22%
Alternative	23%	77%

Were strategies implemented when recommended for use?

Strategies that were recommended for use by SSTs were mostly implemented. Classroom-based strategies were more likely to be used when recommended. Home visits and study skills had a higher percentage of cases where the strategies were not used despite SST recommendations. There are, however, a number of cases where strategies were used with students that were not recommended by the SST. It is not possible to conclude from the data whether this is an indication of numerous visits to the SSTs or other reasons.

Were some strategies more effective than others?

Strategies for the 1998-99 school year were categorized as classroom-based (see Figure 7, page 13), school support strategies (see Figure 8, page 14) or community-based (see Figure 9, page 15). For each individual strategy that was recommended and implemented, the percentage that reported an effectiveness rating of "Good" was much higher than those rated as "Poor." This might suggest that the types of strategies that were recommended and implemented were quite appropriate and successful for those students.

Classroom-based strategies were the most commonly used form of interventions recommended and used by SST teams, followed by school-based strategies. Of the classroom based strategies, behavioral interventions were rated poor most frequently (23%). Other strategies tended to be rated poor at around 10 to 15%.

Among all the strategies recommend, the highest rating for effectiveness was IEP teams (73% rated as Good). Alternative schools, after hour's schools, social services, home visits, and family / community assessments were rated poor the most frequently (around 25 to 30%).

It appears that the SST program continues to provide an invaluable service to students at-risk and their families. For those students referred, a large majority showed improvement for their areas of presenting concerns by the end of the year. In addition, recommended and implemented strategies were generally highly successful for classroom-based, school support services, and community-based services.

RECOMMENDATIONS

The increasing availability of laptop computers and accessible student databases may assist in future program evaluations. The use of scanable forms has increased the amount of data available for analysis, but problems persist related to missing data, and SST chairpersons seem to have difficulty generating the requested information in a timely manner. Consolidation of reporting forms and better use of shared databases may both improve data and make possible investigations into additional questions such as a study of the length of time between strategy recommendations and implementation, and identification of possible obstacles to implementation.

Quantitative data provides an invaluable resource in program evaluation. However, it does not always provide the full picture. A qualitative component to the intervention/prevention evaluation could provide invaluable information. However, qualitative methods often require more resources for data collection and more time for analysis than quantitative data.

Data collected for this report suggests that the effectiveness of SSTs in alternative schooling programs needs to be seriously questioned. Further detailed study of SST processes in the alternative schools is required to explain the relatively poor effectiveness ratings for the strategies identified by SSTs in those schools, and their high levels of 'No Improvement' ratings. Reasons for strategy implementation, or non-implementation should also be researched. This may result in a better initial targeting of SST discussions about the strategies to be used for students with different presenting concerns.